

**METHOD FOR THREE PLANE INTERLEAVED ACQUISITION FOR THREE
DIMENSIONAL TEMPERATURE MONITORING WITH MRI**

5

ABSTRACT OF THE INVENTION

The present invention provides for a method of three dimensional temperature monitoring based in hyperthermic procedures, the heat dissipation, and therefore, temperature variations, does not change dramatically over a spatial region and, second, 10 temperature change, which manifests itself as the phase change, has different characteristics compared to the anatomic magnitude image. Therefore the present invention exploits these facts to provide a method for acquiring the temperature map of three orthogonal planes nearly simultaneously.